

**TRANSMITTAL OF APPEAL BRIEF**Docket No.  
THL-10002/29

In re Application of: Richard Thiele, Jr.

Application No.  
10/827,564-Conf. #3187Filing Date  
April 19, 2004Examiner  
E. O. OkezieGroup Art Unit  
3654

Invention: SHOVELS AND OTHER IMPLEMENTS WITH SCALLOPED LEADING EDGES

**TO THE COMMISSIONER OF PATENTS:**Transmitted herewith is the Appeal Brief in this application, with respect to the Notice of Appeal  
filed: May 29, 2007 .

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of: Thiele, Jr.

Serial No.: 10/827,564

Group Art Unit: 3652

Filed: April 19, 2004

Examiner: E. Okezie

For: SHOVELS AND OTHER IMPLEMENTS WITH SCALLOPED LEADING EDGES

**APPELLANT'S BRIEF UNDER 37 CFR §41.37**

Mail Stop Appeal Brief  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

**I. Real Party in Interest**

The real party and interest in this case is Richard Thiele, Jr., Applicant and Appellant.

**II. Related Appeals and Interferences**

There are no appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**III. Status of Claims**

The present application was filed with 12 claims. Claims 1-12 are pending, rejected and under appeal. Claim 1 is the sole independent claim.

**IV. Status of Amendments Filed Subsequent  
Final Rejection**

An after-final amendment is being filed herewith.

**V. Summary of Claimed Subject Matter**

Independent claim 1 is directed to an improved blade for a shovel having an elongated handle

(102). The blade comprising a scoop portion (104, 204) having a width (W), a length (L), and a leading edge furthest away from the handle. A plurality of concave scallops (110, 602, Figures 1-6) are present on the leading edge. Each scallop defines a segment of a single circle, and the segments intersect at distinct forward points in a straight line generally perpendicular to the handle. (Specification, page 2 line 19 to page 4, line 9).

## **VI. Grounds of Objection/Rejection To Be Reviewed On Appeal**

A. The rejection of claims 1 and 6-10 and 12, wherein claims 6-10 and 12 stand/fall with claim 1, and wherein claims 1, 6 and 7 stand rejected under U.S.C. §102(b) as being anticipated by U.S. Patent No. 2,932,103 to Wright; Claims 1 and 6 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Design Patent No. D308,004 to Dawley et al.; claim 1 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,868,775 to Anderson in view of U.S. Patent No. 3,103,752 to Rockwell; claims 7-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 2,932,103 to Wright; and claims 8 and 12 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 2,932,103 to Wright in view of U.S. Patent No. 6,497,439 to Guo.

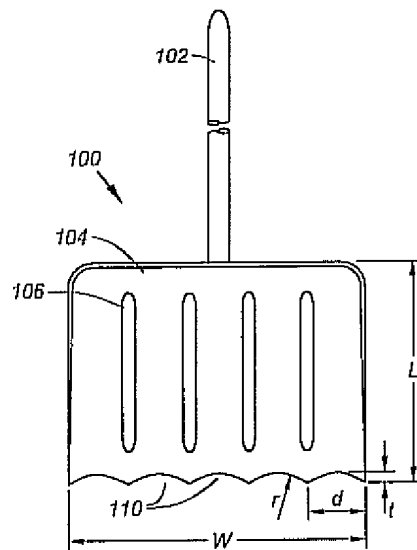
B. The rejection of claims 2-5 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 2,932,103 to Wright.

C. The rejection of claim 11 under U.S.C. §102(b) as being anticipated by U.S. Patent No. 2,932,103 to Wright.

## **VII. Argument**

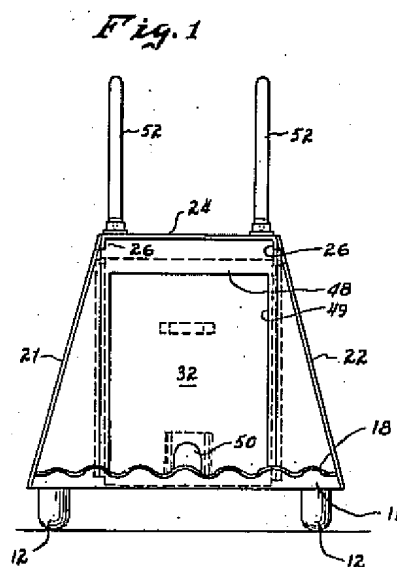
A. The rejection of claims 1 and 6-10 and 12, wherein claims 6-10 and 12 stand/fall with claim 1.

Claim 1 is directed to an improved blade for a shovel. The blade has a scoop portion with a leading edge having a plurality of concave scallops, each scallop defining a segment of a single circle, and wherein the segments intersect at distinct forward points in a straight line generally perpendicular to the handle. For reference, Appellant's Figure 1 is reproduced below:

**Fig - 1**

Two of Appellant's claimed scallops are indicated at 110. As can be seen, each segment extends from point-to-point. This is precisely what Appellants claims: "the segments intersect at distinct forward points."

Claim 1 stands rejected under U.S.C. §102(b) over U.S. Patent No. 2,932,103 to Wright. Figure 1 of Wright is reproduced below:



There is no disclosure in Wright of circular segments that intersect at distinct forward points. To the extent Wright even uses circular segments, they never "intersect." Rather the leading edge of

Wright alternates from concave to convex, thereby forming a continuous wave with no distinct forward points whatsoever. The Examiner's argument is that "the forward edge 18 [of Wright] terminates at a distinct point." But in the case of Appellant, it is not the entire edge that terminates at a distinct point, it is the intersection of circular segments that terminate at *a plurality of distinct points*.

Anticipation may be established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention. RCA Corp. v. Applied Digital Data Systems, 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). Moreover, anticipation requires the presence of all elements of a claimed invention as arranged in the claim, such that a disclosure "that 'almost' meets that standard does not 'anticipate'." Connell v. Sears, Roebuck Co., 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983). In this case, since Wright does not teach or suggest a plurality of circular segments that intersect at distinct forward points, *prima facie* anticipation has not been established.

Claim 1 further stands rejected under 35 U.S.C. §102(b) over U.S. Design Patent No. D308,004 to Dawley et al. The Dawley implement is shown below:

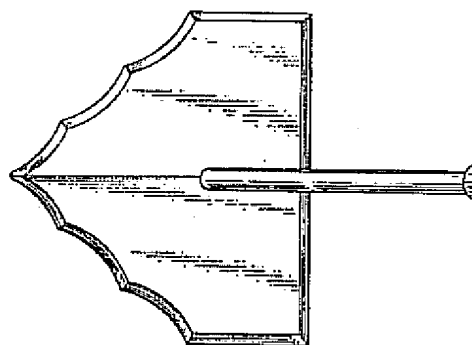
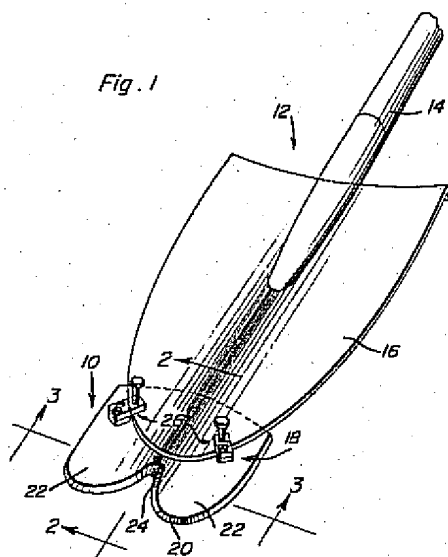


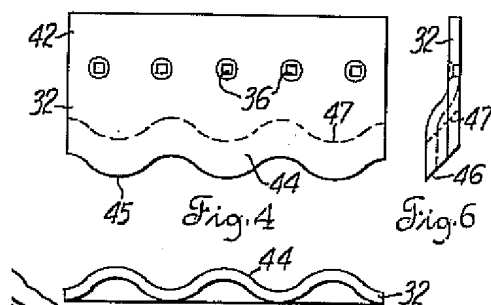
FIG. 2

Claim 1 requires that "the segments intersect at distinct forward points *in a straight line generally perpendicular to the handle*." This Dawley does not have.

Claim 1 further stands rejected under 35 U.S.C. §103(a) over U.S. Patent No. 3,868,775 to Anderson in view of U.S. Patent No. 3,103,752 to Rockwell. Anderson is shown below:



It is interesting to note that here, in contrast to the application of the Wright reference, the Examiner admits that the “rounded sections do not ... intersect at distinct forward points.” (Final OA, p. 5). Nevertheless, the Examiner argues that it would be obvious to Combine Anderson with Rockwell “to provide a blade which is self-sharpening.” The blade of Rockwell is depicted below from different perspectives:



This argument is flawed on several grounds. First, there is no teaching or suggestion in the primary reference of Anderson that self-sharpening is necessary or desirous. As such, there is no motivation to combine. The mere fact that references *can* be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

Secondly, according to the Rockwell reference, the lower portion of the blade 32 is corrugated

as illustrated at 44, and terminates in a scalloped edge 45. The bottom surface 46 of blade 32 is parallel to the direction of movement of the excavator which is parallel to surface 30 of the earth. The blade is self-sharpening and as it wears the scalloped cutting edge is maintained. For instance the blade may wear to the condition shown by dashed line 47..." ('752 Patent, 2: 22-29) Since there is no way of knowing in which orientation the blade of Anderson will be used, even if the Anderson implement were fitted with the blade of Rockwell, self-sharpen would probably not occur because the blade of Rockwell requires a fixed orientation relative to ground surface. Accordingly, *prima facie* obviousness has not been established.

B. The rejection of claims 2-5.

Claims 2-5 all set forth positive structural limitations involving specific blade geometries. Claim 2 states that the width of the scoop portion ranges between 6 and 24 inches, and the number of scallops ranges between 3 and 12. Claim 3 states the points are spaced apart by a distance 'd', and the radius of each scallop, 'r,' is greater than  $d/2$ . Claim 4 states that the points are spaced apart by a distance 'd', and the radius of each scallop, 'r,' is substantially equal to 'd'. Claim 5 sets forth that the points are spaced apart by a distance 'd', and the radius of each scallop, 'r,' is greater than 'd'.

The Examiner rejects these limitations on omnibus grounds; that is, that it would be obvious "to design the tool dimensions based on the application of the tool." This is nothing more than an impermissible "obvious to try" rationale, precluding *prima facie* obviousness.

C. The rejection of claim 11.

Claim 11 adds to claim 1 that "the leading edge is attached to the scoop portion." Claim 11 stands rejected under U.S.C. §102(b) as being anticipated by U.S. Patent No. 2,932,103 to Wright. Without so stating, it seems the Examiner's argument is that since the leading edge of Wright is integrally formed with the scoop portion, that qualifies as "attached." But the reasonable definition of "attached" is connected to; i.e., linked or joined together. This is precisely what Appellant disclosed, and that interpretation should be used.

The broadest reasonable interpretation of a claim term must be consistent with the interpretation that those skilled in the art would reach. *In re Cortright*, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468

(Fed. Cir. 1999), and, in addition, “claim interpretation must be consistent with the specification.” *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). The written description must be examined in every case, because it is relevant not only to aid in the claim construction analysis, but also to determine if the presumption of ordinary and customary meaning is rebutted. *See Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250, 48 USPQ2d 1117, 1122 (Fed. Cir. 1998). The presumption will be overcome where the patentee, acting as his or her own lexicographer, has clearly set forth a definition of the term different from its ordinary and customary meaning. *See In re Paulsen*, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994); *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1387-88, 21 USPQ2d 1383, 1386 (Fed. Cir. 1992). Here “attached” means “separate pieces connected, joined or linked together.” This is consistent with the specification and the interpretation that the skilled artisan would provide.

### Conclusion

In conclusion, for the arguments of record and the reasons set forth above, all pending claims of the subject application continue to be in condition for allowance and Appellant seeks the Board's concurrence at this time.

Respectfully submitted,

By: 

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**APPENDIX A****CLAIMS ON APPEAL**

1. An improved blade for a shovel having an elongated handle, the blade comprising:  
a scoop portion having a width, a length, and a leading edge furthest away from the handle;  
a plurality of concave scallops on the leading edge, each scallop defining a segment of a single circle; and

wherein the segments intersect at distinct forward points in a straight line generally perpendicular to the handle.

2. The improved shovel of claim 1, wherein:  
the width of the scoop portion ranges between 6 and 24 inches; and  
the number of scallops ranges between 3 and 12.

3. The improved shovel of claim 1, wherein:  
the points are spaced apart by a distance 'd'; and  
the radius of each scallop, 'r,' is greater than  $d/2$ .

4. The improved shovel of claim 1, wherein:  
the points are spaced apart by a distance 'd'; and  
the radius of each scallop, 'r,' is substantially equal to 'd'.

5. The improved shovel of claim 1, wherein:  
the spaced are apart by a distance 'd'; and  
the radius of each scallop, 'r,' is greater than 'd'.

6. The improved shovel of claim 1, wherein the scallops are substantially identical.

7. The improved shovel of claim 1, wherein the scoop portion is configured for snow shoveling.
8. The improved shovel of claim 1, wherein the scoop portion includes stiffening ribs.
9. The improved shovel of claim 1, wherein the scoop portion is configured for gardening.
10. The improved shovel of claim 1, wherein the scoop portion is configured for ice scraping.
11. The improved shovel of claim 1, wherein the leading edge is attached to the scoop portion.
12. The improved shovel of claim 1, wherein the leading edge and scoop portion are constructed from dissimilar materials.

**APPENDIX B**

**EVIDENCE**

None.

**APPENDIX C**

**RELATED PROCEEDINGS**

None.